

REV.
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AS6159

RATIONALE

ADDED STANDARD CONFIGURATION 242424.

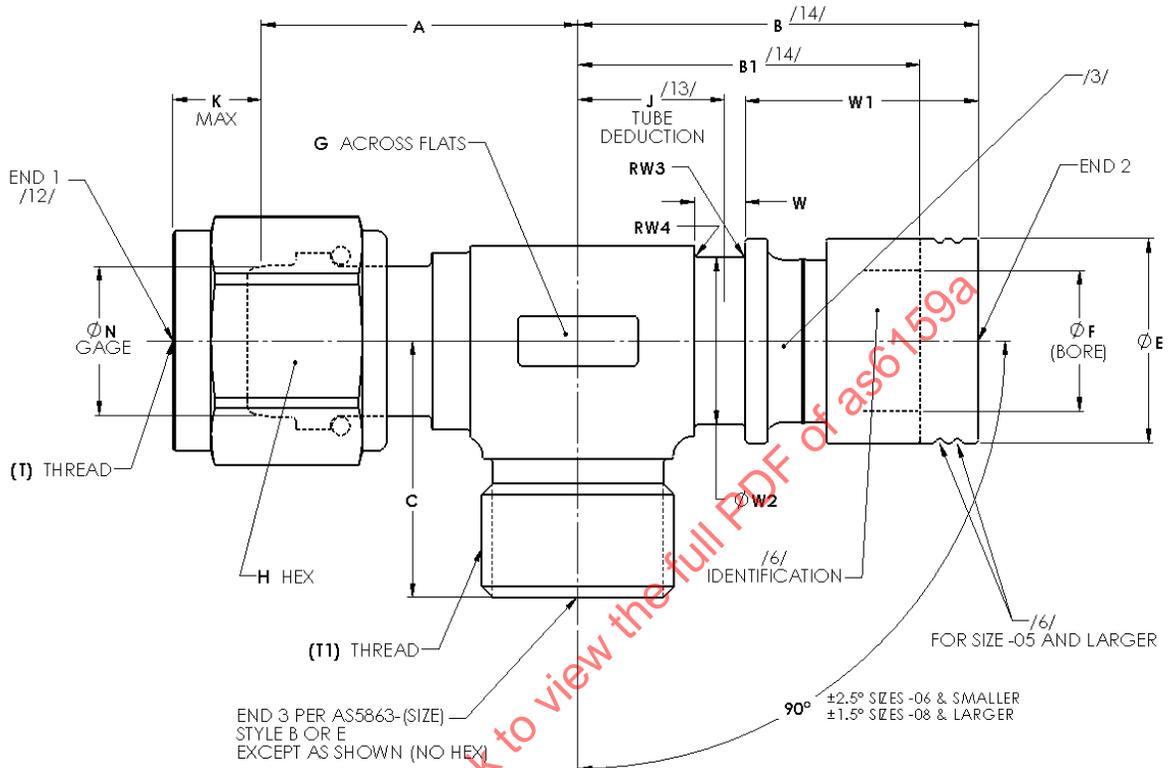
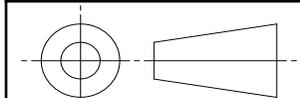


FIGURE 1 - TEE, AXIALLY SWAGED TO FEMALE FLARELESS ON THE RUN,
MALE FLARELESS ON THE SIDE

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THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS6116



AEROSPACE STANDARD

FITTING ASSEMBLY, TEE, AXIALLY SWAGED TO
FEMALE FLARELESS ON THE RUN, MALE FLARELESS
ON THE SIDE, HYDRAULIC, UP TO 1500 PSI

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TABLE 1A - DIMENSIONS A THROUGH F

| BASIC NO. AS6159 /16/ SIZE CODE | NOMINAL TUBE SIZE END 1 | NOMINAL TUBE SIZE END 2 | NOMINAL TUBE SIZE END 3 | A ±.015 | B MAX | B1 MAX | C ±.015 | ØE MAX | ØF MIN |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|------------|----------|-----------|------------|-----------|-----------|
| 040404 | .250 | .250 | .250 | .874 | 1.112 | .959 | .767 | .435 | .253 |
| 050505 | .3125 | .3125 | .3125 | .949 | 1.258 | 1.110 | .786 | .503 | .3155 |
| 060606 | .375 | .375 | .375 | 1.047 | 1.464 | 1.237 | .846 | .580 | .378 |
| 080808 | .500 | .500 | .500 | 1.230 | 1.765 | 1.505 | 1.032 | .755 | .503 |
| 101010 | .625 | .625 | .625 | 1.434 | 1.843 | 1.603 | 1.158 | .929 | .629 |
| 121212 | .750 | .750 | .750 | 1.598 | 2.103 | 1.823 | 1.346 | 1.150 | .754 |
| 121612 | .750 | 1.000 | .750 | 1.760 | 2.618 | 2.238 | 1.449 | 1.474 | 1.004 |
| 161616 | 1.000 | 1.000 | 1.000 | 1.864 | 2.618 | 2.238 | 1.505 | 1.474 | 1.004 |
| 202020 | 1.250 | 1.250 | 1.250 | 2.093 | 3.069 | 2.654 | 1.627 | 1.768 | 1.255 |
| 242424 | 1.500 | 1.500 | 1.500 | 2.437 | 3.600 | 3.105 | 1.747 | 2.070 | 1.505 |

TABLE 1B - DIMENSIONS G THROUGH J

| BASIC NO. AS6159 /16/ SIZE CODE | NOMINAL TUBE SIZE END 1 | NOMINAL TUBE SIZE END 2 | NOMINAL TUBE SIZE END 3 | G ±.015 | (H) | J /13/ TUBE DEDUCTION |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|------------|-------|-----------------------------|
| 040404 | .250 | .250 | .250 | .438 | .562 | .419 +.150/-.180 |
| 050505 | .3125 | .3125 | .3125 | .465 | .625 | .435 +.150/-.180 |
| 060606 | .375 | .375 | .375 | .563 | .688 | .492 +.150/-.195 |
| 080808 | .500 | .500 | .500 | .750 | .875 | .590 +.150/-.210 |
| 101010 | .625 | .625 | .625 | .875 | 1.000 | .663 +.150/-.200 |
| 121212 | .750 | .750 | .750 | 1.063 | 1.250 | .783 +.150/-.245 |
| 121612 | .750 | 1.000 | .750 | 1.304 | 1.250 | .928 +.150/-.330 |
| 161616 | 1.000 | 1.000 | 1.000 | 1.304 | 1.500 | .928 +.150/-.330 |
| 202020 | 1.250 | 1.250 | 1.250 | 1.618 | 1.812 | 1.104 +.150/-.375 |
| 242424 | 1.500 | 1.500 | 1.500 | 1.806 | 2.125 | 1.275 +.150/-.425 |

TABLE 1C - DIMENSIONS K THROUGH T1

| BASIC NO. AS6159 /16/ SIZE CODE | NOMINAL TUBE SIZE END 1 | NOMINAL TUBE SIZE END 2 | NOMINAL TUBE SIZE END 3 | K MAX | ØN GAGE | (T) THREAD PER AS8879 | (T1) THREAD PER AS8879 |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|----------|------------|--------------------------|---------------------------|
| 040404 | .250 | .250 | .250 | .248 | .2930 | .4375-20 UNJF-3B | .4375-20 UNJF-3A |
| 050505 | .3125 | .3125 | .3125 | .331 | .3500 | .5000-20 UNJF-3B | .5000-20 UNJF-3A |
| 060606 | .375 | .375 | .375 | .302 | .4120 | .5625-18 UNJF-3B | .5625-18 UNJF-3A |
| 080808 | .500 | .500 | .500 | .316 | .5600 | .7500-16 UNJF-3B | .7500-16 UNJF-3A |
| 101010 | .625 | .625 | .625 | .424 | .6730 | .8750-14 UNJF-3B | .8750-14 UNJF-3A |
| 121212 | .750 | .750 | .750 | .388 | .8100 | 1.0625-12 UNJ-3B | 1.0625-12 UNJ-3A |
| 121612 | .750 | 1.000 | .750 | .388 | .8100 | 1.0625-12 UNJ-3B | 1.0625-12 UNJ-3A |
| 161616 | 1.000 | 1.000 | 1.000 | .454 | 1.0620 | 1.3125-12 UNJ-3B | 1.3125-12 UNJ-3A |
| 202020 | 1.250 | 1.250 | 1.250 | .465 | 1.3160 | 1.6250-12 UNJ-3B | 1.6250-12 UNJ-3A |
| 242424 | 1.500 | 1.500 | 1.500 | .460 | 1.5650 | 1.8750-12 UNJ-3B | 1.8750-12 UNJ-3A |

TABLE 1D - DIMENSIONS W THROUGH W4 AND WEIGHTS

| BASIC NO. AS6159 /16/ SIZE CODE | NOMINAL TUBE SIZE END 1 | NOMINAL TUBE SIZE END 2 | NOMINAL TUBE SIZE END 3 | W MIN | W1 MAX | ØW2 ±.002 | W3 MAX | W4 MAX | WEIGHT APPROX LB/EA |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|----------|-----------|--------------|-----------|-----------|---------------------------|
| 040404 | .250 | .250 | .250 | .185 | .604 | .320 | .020 | .020 | .030 |
| 050505 | .3125 | .3125 | .3125 | .180 | .724 | .371 | .020 | .020 | .040 |
| 060606 | .375 | .375 | .375 | .195 | .883 | .463 | .020 | .020 | .050 |
| 080808 | .500 | .500 | .500 | .210 | 1.076 | .595 | .020 | .020 | .095 |
| 101010 | .625 | .625 | .625 | .225 | 1.076 | .758 | .020 | .020 | .140 |
| 121212 | .750 | .750 | .750 | .235 | 1.201 | .903 | .025 | .025 | .235 |
| 121612 | .750 | 1.000 | .750 | .260 | 1.566 | 1.196 | .035 | .035 | .340 |
| 161616 | 1.000 | 1.000 | 1.000 | .260 | 1.566 | 1.196 | .035 | .035 | .375 |
| 202020 | 1.250 | 1.250 | 1.250 | .285 | 1.829 | 1.460 | .035 | .035 | .615 |
| 242424 | 1.500 | 1.500 | 1.500 | .310 | 2.178 | 1.704 | .035 | .035 | .850 |



AEROSPACE STANDARD

FITTING ASSEMBLY, TEE, AXIALLY SWAGED TO FEMALE FLARELESS ON THE RUN, MALE FLARELESS ON THE SIDE, HYDRAULIC, UP TO 1500 PSI

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NOTES:

/1/ MATERIALS:

CODE LETTER "D"

BODY - TYPE 6061-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/8.

RING - TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

NUT - TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

WIRE - TYPE 302 OR 305, CONDITION A CORROSION RESISTANT STEEL WIRE PER ASTM A580 (SIZES -04 AND 05).

- TYPE 2024-T4 OR 2024-T351 ALUMINUM ALLOY WIRE PER AMS-QQ-A-225/6 (SIZES -06 AND LARGER).

2. FINISH:

BODY - CHEMICAL CONVERSION COATED PER MIL-DTL-5541 TYPE I CLASS 3.

RING - ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, DYED GREEN, SIMILAR TO NO. 14187, 14193, OR 14223 OF FED-STD-595 AND SHALL BE DUPLEX SEALED.

NUT - ANODIZED PER MIL-A-8625 TYPE II, CLASS 2, DYED BROWN SIMILAR TO NO. 10080, OF FED-STD-595 AND SHALL BE DUPLEX SEALED.

WIRE - PASSIVATED PER AMS2700. (SIZES -04 AND -05)

- ANODIZED PER MIL-A-8625 TYPE II, CLASS 2 (YELLOW) WITH DUPLEX SEAL (SIZES -06 AND LARGER).

/3/ COATINGS/LUBRICANTS:

BODY

a. DRY FILM LUBRICANT PER AS5272 TYPE I SHALL BE APPLIED TO THE OD OF THE AXIALLY SWAGED FITTING END. ADDITIONAL LUBRICANT APPLIED SHALL BE SPECIFIED BY MANUFACTURER. THE LUBRICANTS SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.

b. POLYTETRAFLUOROETHYLENE (PTFE) COAT, LIGHT GREEN, SHALL BE APPLIED TO PORTIONS OF ID (BORE) UP TO THE FIRST GROOVE. OVERSPRAY IN GROOVE IS NOT PERMITTED.

c. A MINIMUM OF TWO GROOVES (END SIZE -05 AND LARGER) SHALL BE FILLED WITH ELASTOMERIC DIMETHYL SILOXANE COMPOUND. FOR SMALLER SIZE ENDS, A MINIMUM OF ONE GROOVE SHALL BE FILLED WITH THE COMPOUND.

WIRE - SOLID FILM LUBRICANT PER AS5272, TYPE I.

/4/ PROCUREMENT SPECIFICATION: AS6116 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS6116 FOR THIS STANDARD. SEE www.eAuditNet.com FOR THE CURRENT QPL ON-LINE.

5. DIMENSIONS AND TOLERANCES NOT DEFINED ON THIS STANDARD SHALL BE SPECIFIED AND CONTROLLED BY THE MANUFACTURER. THE MANUFACTURER IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PROCUREMENT SPECIFICATION.

/6/ IDENTIFICATION SHALL BE IN ACCORDANCE WITH AS6116 AND SHALL BE IDENTIFIED ON THE RING IN THE AREA SHOWN. FOR SIZE -05 AND LARGER, THE RING OD SHALL HAVE TWO GROOVES INDICATING DUAL SEALING BACK UP FEATURE.

7. FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH AS6124.

8. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, THE MAXIMUM MACHINED SURFACES SHALL BE 125 MICRONS Ra.

9. BREAK ALL EDGES .003 TO .010 INCHES UNLESS OTHERWISE SPECIFIED.

10. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.

11. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ± 0.015 , ANGULAR DIMENSIONS $\pm 0^{\circ}30'$.

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|---|---|-------------------------------|-------------------------|
|  | AEROSPACE STANDARD | AS6159 SHEET 3 OF 4 | REV. A |
| | FITTING ASSEMBLY, TEE, AXIALLY SWAGED TO FEMALE FLARELESS ON THE RUN, MALE FLARELESS ON THE SIDE, HYDRAULIC, UP TO 1500 PSI | | |